

**DOCKET NO.: DIBIS-0002US.P5 (Counsel Docket No. 10468)****PATENT****REMARKS****I. Review of Office Action**

Claims 1-28 were pending and under examination. In the Office Action mailed May 1, 2006 the Examiner makes a Restriction Requirement, restricting pending claims 1-28 into the following two groups:

Group I. (Claims 1-25) drawn to a forensic method, classified in class 435, subclass 91.2.

Group II. (Claims 26-28) drawn to a primer sequence, requiring SEQ ID NO: 8-43, classified in class 536, subclass 22.1.

**II. Claim and Species Elections**

Applicants elect, without traverse, to prosecute the claims of Group I. In an Amendment accompanying this response, Applicants have cancelled claims 26-28 in order to further their business interests and the prosecution of the present application. Applicants reserve the right to prosecute the cancelled claims of Group II in one or more divisional applications.

In the Office Action of May 1, 2006, the Examiner indicates the requirement for election of a single species from claims 3-5, 8-10, and 16-18 which recite the following species:

- (i) an animal
- (ii) a human
- (iii) a nonhuman eukaryotic organism
- (iv) a fungus
- (v) a parasite
- (vi) a protozoan

The Examiner further indicates the requirement for election of a single species from claim 25 which recites several species related to mitochondrial diseases.

Applicants elect, without traverse, species (ii) a human, for claims 3-5, 8-10, and 16-18. Applicants elect, without traverse, "complex I deficiency" from the species related to

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mitochondrial diseases.

Applicants note that the generic claims should be considered by the Examiner if the elected species should be found allowable.

**III. Claim Cancellations**

Claims 1-12, 14, 21 and 26-28 have been cancelled. Applicants reserve the right to pursue these cancelled claims in one or more divisional applications.

**IV. Claim Amendments**

Claims 13, 16-19, 22, and 23 have been amended.

Support for the amendments of claim 13 can be found, for example, in Figure 19 with associated description on pages 40 and 41.

Claims 16-18 are amended only to correct antecedent basis for the amendment of claim 13 to "plurality of subjects."

Support for the amendments of claim 19 can be found, for example, on page 24, lines 22 and 23.

Support for the amendments of claim 22 can be found, for example, in Figures 19 and 20.

The amendment of claim 23 does not involve claim elements and is included only to improve readability of the claim.

**V. New Claims**

Claims 29-44 have been added.

Support for the amended claim 13 and new claim 34 can be found, for example, in Figure 19. Support for the element of determination of base composition of claim 34 can be found, for example, in original claim 6.

Support for new claims 29, 30, 41 and 42 can be found, for example, in original claims 11 and 12.

Support for new claim 31 can be found, for example, in Figure 20B.

Support for new claims 32 and 43 can be found, for example, on page 23, lines 19-26.

Support for new claims 33 and 44 can be found, for example, in original claim 21.

Support for new claims 35-40 can be found, for example, in original claims 15-20.

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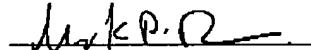
Support for new claim 45 can be found, for example, in Figure 20A which demonstrates length heteroplasmy and on page 26, lines 4-9 which describe single nucleotide polymorphisms.

No new matter has been added.

**VI. Conclusions**

In view of the foregoing, Applicants submit that the claims of the instant application are in condition for allowance. The Examiner is invited to contact Applicants' undersigned representative if there should be any questions with regard to the claimed invention.

Respectfully submitted,



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